DAILY FIELD ACTIVITY REPORT

PROJECT NAME: Pre-Remedial Design Investigation and Baseline Sampling, Portland Harbor Superfund Site

DATE: May 14, 2018	**WEATHER:** Sunny, warm in the morning, hot in the afternoon - mid 80's

Personnel and Visitors Onsite:
Research vessel Teiton – CDM Smith: Mary Lou Fox; AECOM: Mike Tauscher; Geosyntec: Luke Smith; Gravity Marine: Mike Duffield, Ed Sloan

Research vessel Cayuse – CDM Smith: Andy Greazel; AECOM: Bruce Cassom; Geosyntec: Adam Mcguire; Gravity Marine: Peter Jenkins, Jeff Schul

Planned Activity:
- Teiton - Collect surface sediment samples at sediment management area (SMA) and co-located core locations near River Mile (RM) 7.6.
- Cayuse - Collect surface sediment samples at SMA locations near River Mile (RM) 8.8 and 9.5 RM E and at 9.5 RM.

Activity Completed:
A tailgate safety meeting was led by AECOM. Topics discussed included a discussion regarding the incident with the syringe with needle that washed onto the back deck of the Teiton on 5/13/2018 and working in the hot weather – staying hydrated and taking breaks.

Mary Lou Fox performed morning oversight of surface sediment sampling from 08:00 to 17:15 on board the Teiton. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:
- Position check at PH-2 indicated that the vessel GPS was reading within 0.82 meters of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.
- 3-point composite surface sediment samples were collected from 5 SMA or co-located boring locations near RM 7.6 east as summarized below. Activities included decontamination of sampling equipment using Alconox and deionized/distilled water and housekeeping of the sampling area.

Andy Greazel performed oversight of surface sediment sampling near RM 8.8 to 9.5 of the Willamette River from 08:00 to 17:15 on board the Cayuse. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:
- GPS position checks were performed at the beginning and end of the day at the PH-2 pile at the Fred Devine property. GPS coordinates were within 1 meter of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.
- 3-point composite surface sediment samples were collected from eight SMA locations, as summarized below. Between sampling locations all sampling equipment was decontaminated using Alconox and deionized/distilled water.

Status of Schedule & Priority Work:
- Sampling will continue Wednesday afternoon with SMA and co-located core sampling locations.
- Sampling on some private property locations will continue to occur at locations with property access agreements.
- Sample locations in areas of known/encountered heavy sheen contamination are planned to be skipped and returned to with support from NRC Environmental Services to contain sheen during sampling.
- Sampling is taking more time than initially projected.

Issues/Concerns/Resolutions (include work performed that was not planned or anticipated):
- At location S135, 6 grabs were performed (3 within 25 ft and 3 within 50 ft) with all sediment recoveries all < 20 cm or failed due to a rock or stick in the sampler jaws, yielding very little sediment. Five of the six grabs were performed with maximum additional weight of 250 pounds on the sampler with the pontoons completely raised. Grabs 1,3, and 5 were composited for the sample, which AECOM/Geosyntech stated would be archived.
- At location S155, 6 grabs were performed (3 within 25 ft and 3 within 50 ft) with all sediment recoveries all < 20 cm. All six grabs were performed with maximum additional weight of 250 pounds on the sampler with the pontoons completely raised. Grabs 1,2, and 3 were composited for the sample, which AECOM/Geosyntech stated would be archived.
- At location S158, a total of 7 grabs were performed, with grabs 1 and 2 yielding a thin layer of approximately 3 cm or less of hard clay). An EPA "thin" sample was composited from grabs 3, 4, and 5 and the Pre-RD Group "thick" sample was composited from grabs 3, 6, and 7. The two-bowl method was performed by homogenizing each grab sediment and diving each bowl in half. Each composite was made from half bowl contributions from the individual grabs.

- At location S157, 9 grabs were completed. Grabs 2, 3, 5, 6, 7, and 8 yielded either a piece of wood in the sampler jaws with a washout of the sediment or a sampler filled with nothing but water. Grabs 1,4, and 9 yielded sediment recoveries < 20 cm. The composite was made from grabs 1,4, and 9 and AECOM/Geosyntech stated the sample will be archived.
- SG-S237 is located offshore of Gunderson and a very large barge is moored over the sample location. This location is inaccessible until the barge moves.
- One grab sample at SG-249 returned less than 20 cm of sediment. Therefore, the 2-bowl method was implemented and one sample was archived.
- SG-227 was located close to the Gunderson barge launch rails. Sampling proceeded straight to the 50 ft radius to avoid the launch rails

Samples Collected, Measurements Made, Photographs: (List Locations, Matrix & Sample type):
On the Teiton, the following surface sediment samples were collected at SMA or co-located core locations near RM 7.6:

- PDI-SG-S135 – Within 50 ft radius, dark brown well graded sand
- PDI-SG-S155 – Within 50 ft radius, fine to medium gray sand
- PDI-SG-S158 – Within 25 ft radius, medium stiff silty clay
- PDI-SG-S157 – Within 50 ft radius, silty clay
- PDI-SG-S161 – Within 25 ft radius, dark gray silt

On the Cayuse, the following surface sediment samples were collected at SMA or co-located core locations near RM 8.8 and 9.5:

- PDI-SG-S252 – Within 25 ft radius, very dark silt to sandy silt
- PDI-SG-S250 – Within 25 ft radius, very dark brown
- PDI-SG-S249 – Within 50 ft radius, very dark gray silt/sandy silt
- PDI-SG-S248 – Within 25 ft radius, dark gray to brown sandy silt
- PDI-SG-S247 – Within 25 ft radius, dark brown sandy silt
- PDI-SG-S246 – Within 50 ft radius, dark gray sand with silt
- PDI-SG-S244 – Within 25 ft radius, very dark gray silt with trace sand
- PDI-SG-S227 – Within 25 ft radius, Silt with trace sand very dark gray

Note: Sediment descriptions are simplified and AECOM/Geosyntec provided more detailed sediment descriptions in their sampling notes.

Photographs of work were taken throughout the day on board the Teiton and provided to EPA via email. Additional photos were taken and archived with a description included in the photolog Excel spreadsheet, which are maintained electronically in the ProjectWise project folder.

Borings Completed (Include total footage drilled for each boring):
None

Wastes Generated and How Handled:

- Excess sediment and debris in the power grab sampler and in the sampling bowls was rinsed back into the river per the FSP. No major sheen was observed.
- Disposable gloves, paper towels, and other general trash was containerized in a trash bag and removed daily for disposal to a municipal waste management dumpster.

Health and Safety Issues, Equipment Needs, Staffing: None observed

Signature: Mary Lou Fox and Andy Greazel **DATE** May 14, 2018